Workshop with Horizon 2020 SC5 Programme Committee representatives and experts from Member States and Associated Countries (MS/AC)

NATURE-BASED SOLUTIONS

Friday, 2 June 2017, 9:00-16:00

European Commission — Champ de Mars building CDMA, Brussels

Conference Report

This report is a summary of the discussions at the above workshop. It does not reflect official positions of the participants, the Member States/Associated Countries (MS/AC) or the European Commission.

- → Download the agenda with links to all presentations
- → Download a folder with all presentations directly
- → Download additional policy briefs

Purpose of the workshop

The purpose of the workshop was to enable informal but targeted dialogue between the MS/AC and Commission services on nature-based solutions (NBS). NBS have recently been introduced into Horizon 2020 work programmes and work on defining, disseminating and implementing them is now yielding its first results. The hope was that allowing for further contacts and mutual learning on NBS via a dedicated workshop would facilitate the exchange of information on results achieved to date and the possibility of promoting, upscaling and mainstreaming NBS on the basis of a research and innovation (R&I) roadmap.

The NBS R&I roadmap includes various policy initiatives that could help to enhance framework conditions for NBS, develop a community of innovators, provide an evidence and knowledge base, advance the development, uptake and upscaling of NBS, and raise their status on the international R&I agenda.

The workshop aimed to improve awareness, understanding and ownership of NBS, and engagement in the NBS R&I roadmap in policies and operations at relevant levels. Other important objectives were to understand MS/AC representatives' views and to gather suggestions on the way forward by consulting on the roadmap.

Participants were asked to discuss practical solutions on ways to raise awareness, and to steer and finance NBS at EU and national/regional levels. This included identifying good examples, challenges, best practices and bottlenecks, and factors enabling/hampering progress from testing innovation to the implementation and integration of NBS across sectors and levels of governance.

The workshop was also an opportunity to promote networking and cooperation among MS/AC and between MS/AC and the Commission, *inter alia* on the basis of existing NBS projects and platforms.

Participants

The participants were from relevant Commission services, the Committee of the Regions and the MS/AC. Generally, two participants per country were invited: one covering NBS in Programme Committee (PC) discussions and one involved in strategic planning, policymaking or implementing NBS at national or regional level, in areas such as green infrastructure (GI), ecosystem-based climate adaptation, natural water retention, ecosystem-based disaster risk retention, and sustainable cities. The second participant was suggested by the PC member.

All participants attended this workshop to facilitate the exchange of expert views in shaping the R&I agenda and the implementation of NBS.

EU R&I policy initiatives on NBS (roadmap) [download presentation]

The EU R&I agenda for NBS and re-naturing cities is implemented *inter alia* through Horizon 2020, the EU's Framework Programme for Research and Innovation, to enhance the awareness and engagement of end-users, steer supply and demand towards the market and develop an EU-wide knowledge base on nature-based solutions.

NBS activities (whether based on RTD policy action or funded by Horizon 2020) are well received by policymakers, authorities, stakeholders, businesses, scientists and civil society at all levels. There is engagement in NBS in many sectors and at many decision levels beyond the research and innovation community. In late 2015, DG RTD commissioned a Eurobarometer survey asking citizens about their engagement in re-naturing cities. Focus groups in a selected city in each Member State discussed in-depth questions in a qualitative study, which results were used to launch a quantitative survey in all of the EU, involving interviews with over 27 000 people. Country result reports can be supplied on request.

The wide range of actors requires careful steering of the process and, wherever possible, cooperation with other initiatives to identify priority areas for synergies, achieve a critical mass of resources and hence make a greater impact. The NBS roadmap serves as a guide through this process, an internal tool enabling DG RTD to monitor progress and a communication tool to promote and explain NBS priorities to our target groups. It sets out five major targets for creating an enabling framework for innovation through NBS; these concern:

- policy initiatives that could help to enhance framework conditions for NBS;
- developing a community of innovators;
- building an evidence and knowledge base;
- advancing the development, uptake and upscaling of NBS; and
- raising the status of NBS on the international R&I agenda.

Presentations at the workshop covered actions that target national, regional and local authorities. These were discussed in more detail in parallel sessions.

Related policy initiatives at European level

1. Urban and regional policy [download presentation]

DG REGIO gave a presentation on how cohesion policy supports NBS. Member States have allocated EUR 3.7 billion from the Cohesion Fund to 'Nature and Biodiversity'. Other relevant activities in 2014-2020 include the EU Urban Agenda Partnership, Urban Innovative Action on NBS and sustainable land-use, and cross-border cooperation opportunities through INTERREG.

Member States stressed the need to disseminate best practices from local authorities that had successfully combined H2020 projects and Cohesion Fund grants (for upscaling and continuing innovative H2020 actions). Other issues included the challenge of integrating the different objectives of H2020 and the Cohesion Fund, the difficulty of responding to calls for innovation (as this involves a risk for the local authority) and the importance of recognising the interdependence of rural and urban space in urban policies.

2. Environment [download presentation]

DG ENV briefly introduced its main policies on nature (GI) and water:

- the EU 2020 Biodiversity Strategy;
- the EU's action plan for nature, people and the economy;
- the Water Framework Directive and the Flood Directive; and
- Natural Water Retention Measures (NWRM).

These policies are signals to decision-makers, planners and promoters to invest in working with nature at local, regional, national and cross-boundary levels.

Discussions focused on deploying NBS, GI and NWRMs; important points were that:

- there is a need for strong evidence of the cost-efficiency of GI as compared with grey infrastructure (also in the long term) to influence choices in public procurement — and more widely to capture evidence and quantify benefits in order to inform planning decisions and investments;
- infrastructure protection and human health improvement generate great economic benefits, but they are difficult to quantify in terms of long-term costs and benefits;
- social and well-being benefits are often major, but hard to quantify and transform into a business case; and
- NBS infrastructure maintenance costs and lifetime are often uncertain; this presents risks for investing and management authorities.

It was also suggested that natural capital valuation could be used to foster multiple-benefit measures and integrated policies.

3. Disaster-risk reduction (DRR) [download presentation]

The framework: 2015-2030 Sendaï Framework for DRR

EU response: 'a disaster-risk-informed approach for all EU policies':

- building risk knowledge in EU policies;
- an 'all of society' approach to disaster-risk management (role for NBS);
- promoting EU risk-informed investments, including through research, structural funds and development (role for NBS); and
- supporting the development of a holistic approach to disaster-risk management (role for NBS).

Pre-disaster: from hazard to risk assessment, forecasting, early warning, multi-risk and governance, prevention/mitigation.

Response: warning/saving people, assistance/emergency response, damage assessment, evacuation.

Post-disaster: ongoing assistance, restoring infrastructure, reconstruction, economic/social recovery, development risk assessment and prevention.

The following H2020 projects deal with DRR and NBS:

- large-scale demonstration projects currently under evaluation (call SC5-08-2017); and
- Espresso[1], an ongoing Coordinated and Supported Action developing a corresponding research agenda.

The following suggestions were made:

- develop national platforms for DRR;
- link DRR with quality of life, so as to foster ecosystem-based DRR;
- look more into NBS for preventing forest fires; research could guide restoration, e.g. what species are the most suitable for prevention/restoration/delivering multiple benefits;
- do more to explain that the Sendaï Framework concerns all countries, not only developing countries; and
- address the difficulty of formulating a concept of proof for eco-DRR, as best practices in use do not currently have a baseline evaluation.

[1] Enhancing Synergies for Disaster Prevention in the European Union: http://www.espressoproject.eu/

4. Climate [download presentation]

DG CLIMA presented the EU's 2013 strategy on adaptation to climate change:

Priority 1: Promoting action by Member States

Action 1. Encourage Member States to adopt adaptation strategies and action plans

Action 2. LIFE funding, including adaptation priority areas

Action 3. Promote adaptation action by cities via the Covenant of Mayors (CoM) initiative

Priority 2: Better-informed decision-making

Action 4. Address knowledge gaps through research

Action 5. Develop a one-stop shop platform for adaptation information in Europe (Climate-ADAPT)

Priority 3: Adaptation in key vulnerable sectors

Action 6. Climate-proof the common agricultural policy, cohesion policy and the common fisheries policy

Action 7. Make infrastructure more resilient

Action 8. Promote insurance and finance markets' products and services

There were presentations on H2020 and LIFE projects on climate adaptation and NBS, and various tools, including Climate-ADAPT[2], the key repository on climate adaptation, which comprises good practices and projects, knowledge tools (e.g. adaptation support tool), etc. This e-portal for governmental action is hosted by the European Environment Agency and co-managed by DG CLIMA.

The new Covenant of Mayors for Climate and Energy and some of its key successes were also presented; the main points were as follows:

- ✓ 7 000+ signatory cities, including 600+ signatories to the new CoM;
- ✓ 700 cities committed to adaptation;
- ✓ 280+ regions, provinces and associations;
- ✓ 5 100+ action plans developed; and
- ✓ commitments to average CO_2-emission reductions of about 28 % by 2020.

Suggested improvements were:

- ➢ making it easier to find NBS on the Climate-ADAPT platform;
- ➢ harmonising the terminology;
- ➢ improving the linkage between H2020 and LIFE projects; and

[2] European Climate Adaptation Platform: http://climate-adapt.eea.europa.eu/

- including NBS in the 2018 climate adaptation strategy.

Presentation of NBS initiatives and policies (Germany, Spain, Estonia, Belgium, France)

[download presentation Germany]
[download presentation Spain]
[download presentation Estonia]
[download presentation Belgium]
[download presentation France]
[download presentation Biodiversa]

Presentations highlighted some experiences of NBS in the above Member States and gave insights into:

- how to link NBS and eco-DRR;
- how NBS can be incorporated into city planning;
- how the upcoming presidency conference will address NBS; and
- how NBS are integrated into the strategic agenda of BiodivERsA[3].

In the course of the discussions, participants suggested:

- ways of enabling greater uptake of NBS at Member-State level;
- translating the term 'NBS' correctly into national languages;
- identifying links and the added value of NBS in the circular economy;
- developing a coherent terminology on various approaches;
- strengthening the role of the scientific community in advising on the design and long-term monitoring of NBS;
- using professional communicators for NBS;
- addressing institutional fragmentation, which is a major barrier to the implementation of systemic NBS (a good example at local level is giving the mayor's office the lead/coordination role for integrating NBS into planning processes);
- investing in the long-term monitoring of NBS in order to understand its efficiency;
- ensuring that the evidence base is available and disseminated, with outputs (including relevant case studies) targeting policymakers;

[3] BiodivERsA Strategic Research and Innovation Agenda (2017-2020): http://www.biodiversa.org/990/download

- publishing figures comparing the costs/benefits of traditional solutions with the multiple benefits of NBS;
- providing national, regional and local decision-makers with clear policy support on NBS;
- working with relevant authorities at MS/AC level to break down cultural and behavioural barriers to change; and
- taking a participatory approach to co-designing and co-implementing NBS.

Information-sharing facilities and knowledge tools [download presentation]

Work on creating an NBS knowledge repository is focused on developing 'intelligent' cross-linkages between relevant EU platforms/databases for displaying information on ecosystem-based initiatives:

- for climate adaption policy, information on ecosystem-based adaptation is hosted on Climate-ADAPT;
- the Biodiversity Information System for Europe (BISE)[4] provides information on Green Infrastructure in biodiversity policy;
- water-policy-related Natural Water Retention Measures are displayed on the NWRM platform;
- eco-DRR initiatives, responding to disaster-risk reduction policies, are posted online on European (DRMKC)[5] and international (PEDRR)[6] platforms;
- genuine R&I information on NBS can be found on Oppla[7] (which serves as a one-stop shop for knowledge on ecosystem services) and ThinkNature[8] (the NBS multi-stakeholder dialogue platform which promotes innovation with nature to address societal challenges); and
- EKLIPSE[9], the European mechanism to answer requests from policymakers and other societal actors on biodiversity-related issues, complements Oppla and ThinkNature; it has developed an impact assessment framework for NBS projects.

[4] http://biodiversity.europa.eu/
[5] Disaster Risk Management Knowledge Center: http://drmkc.jrc.ec.europa.eu/
[6] Ecosystems for Adaptation and Disaster Risk Reduction: http://pedrr.org/
[7] http://www.oppla.eu/
[8] https://www.think-nature.eu/
[9] http://www.eklipse-mechanism.eu/

Presentation of EU-funded NBS projects and case studies

[download presentation OPPLA]
[download presentation ThinkNature]
[download presentation EASME]
[download presentation NBS case studies from EU cities]
[download presentation NBS case study: Malmö]
[download presentation NBS case study: Malmö]

In this part of the workshop, information was provided on H2020-funded NBS projects, clustering efforts to ensure that projects take a common approach to meeting the call objectives, and complementary efforts in line with the NBS roadmap.

There was a presentation on DG RTD's work to publish case studies as a model for disseminating best practices (three cases published on Oppla, 26 more in preparation). A review of relevant FP7-funded projects highlighted policy lessons on NBS which were shared with participants (in draft version; DG RTD intends to publish a policy report in 2017).

Parallel sessions

The parallel sessions were designed to encourage further networking and cooperation among the MS/AC and between the MS/AC and the Commission, promote engagement and elicit suggestions on the way forward in implementing the NBS R&I roadmap. Two sessions addressed issues raised by the MS/AC: how to integrate NBS into city planning and how to create synergies between NBS and eco-DRR.

How to create synergies between NBS and DRR? [download presentation]

The main points that emerged from the discussion on the information flow on NBS/DRR were that:

- good practices exist for:
  - 'building with nature', involving government, research and industry;
  - developing the export potential of the product/approach; and
  - building the knowledge base to allow business development.

  Barriers arise mainly from traditional (interpretations of) legislation favouring traditional solutions, and insufficient capacity. Clearly, communication on approaches must be country-specific;
- there is a need for:
  - communication and understanding between sectors;
  - a multi-sector approach to designing NBS;
  - clear definitions in coherent legislation; and
  - high-level coordination to ensure that all sectors cooperate; and
- recommended next steps might include developing a coherent strategy (on which Member States would be consulted).

Implementing the NBS roadmap

Participants were asked to reflect on barriers to achieving the five targets in the roadmap and suggest solutions or action, at EU or Member-State level, for putting it into practice; discussion focused on:

- Target 1: Enhance the framework conditions for NBS at EU policy level
    - backed by EU-level action, working to develop an enabling administrative framework at national, regional and local levels (this includes areas such as city planning);
- Target 2: Develop a European community of innovators
    - creating a science-policy-business-society mechanism for NBS; establishing scientific advice on NBS for European policymaking (EKLIPSE, Ask Oppla[10]); and
    - consolidating and expanding the European Research Area (ERA) on biodiversity and ecosystem services (on NBS);
- Target 3: Provide the evidence and knowledge base for nature-based solutions
    - creating an NBS repository (open-access evidence and project database for NBS); and
    - developing protocol for projects to report on NBS benefits, upscaling issues, returns of investment, development opportunities, etc.;
- Target 4: Advance the development, uptake and upscaling of innovative NBS
    - testing and applying upscaled innovative NBS through Horizon 2020 calls; and
    - establishing and promoting the business case for NBS among investors and communities of practice (translating economic, social and environmental costs and benefits into business decisions, ecosystem valuation and accounting);
- Target 5: Mainstream nature-based solutions on the international R&I agenda
    - developing synergies with relevant UN bodies (NBS are on the agenda of CBD/SBSTTA, UNCCD, UNFCCC, the Sendaï Framework, UNISDR, PEDRR, IPBES and the UN Habitat III new urban agenda, etc.); and
    - providing narrative for NBS in sustainable development goals (SDGs).

Target 1: Enhance the framework conditions for NBS at EU policy level

<u>Barriers identified</u>

- ✘ silos and a lack of communication between different fields of expertise, activity and policy, silos between different levels of governance, and divergent stakeholder agendas and timelines, e.g. policymakers want quick, short-term results;

[10] Ask Oppla is a crowd-sourced enquiry service on nature-based solutions. Answers are provided by members of the Oppla community. http://oppla.eu/ask-oppla

- fragmentation and a lack of communication and information on NBS effectiveness; in particular, low levels of:
    - public awareness;
    - knowledge on the multi-functionality of NBS; and
    - awareness of the key role of biodiversity in NBS; and
- a lack of consideration by policymakers of the impact of urban planning policies and measures.

Solutions/suggested actions

- include the concept of NBS (which is not yet recognised in legal acts) in strategic documents based on solutions for sustainable development connected with NBS;
- multiply large-scale demonstration projects carrying out an impact assessment of NBS, with local-level guidelines based on interaction and flows between front-runner and follower cities;
- NBS has great potential to break silos as it is not only for environmental, but also for social, economic and health purposes;
- information seminars on funding instruments to overcome fragmented information; related action could be set out in a project template (e.g. a topic for project development assistance as in the energy efficiency call). Small NBS projects could be clustered together so as to facilitate funding by the EIB and private investors;
- foster green procurement by improving the business case for NBS compared with grey infrastructure;
- the Commission could do more to promote NBS among Member States (e.g. the EE-BG-AT presidency trio) and to address NBS and environmental/sustainable issues in its communication with Member States (environment and science ministries, etc.);
- create an urban focal point to address the trans-disciplinary nature of urban phenomena and enhance synergies among the Commission's DGs;
- contact points in national and local governments could act as multipliers of relevant information on NBS in liaison with Commission services;
- cities and municipalities should encourage more private initiatives (e.g. Vienna's 'green hotels');
- foster cooperation between architects, urban planners, policymakers, innovation firms and other implementation bodies, and between those involved in environmental, education and communication stakeholder platforms at Member-State level; establish platforms of these stakeholders at local level; and
- reach out to professional organisations of architects, urban planners, landscape architects, civil engineers, etc. at EU, national and local levels.

Target 2: Develop a European Research and Innovation Community for NBS

Solutions/suggested actions

- the Commission could require diversity in NBS case studies to develop a stronger, more diverse R&I community and test NBS in a wide range of situations;
- the Commission could coordinate meetings between Member-State NBS experts and facilitate international cooperation;
- Member States' research/funding agencies could collate information on NBS-relevant researchers, institutions and projects (and their outcomes), and contribute it to a common database;
- Member States could work through their national innovation agencies and with ESIF funds to make NBS more attractive to business; and
- NBS innovators should work with professional communicators to improve the dissemination and attractiveness of NBS.

Target 3: Provide the evidence and knowledge base for NBS.

Barriers identified

- a lack of a clear, simple definition of NBS and of translations in the official EU languages;
- fragmentation of very similar initiatives (Ecosystem-based approaches, LIFE) in the EU; more coordination is needed; and
- a lack of common NBS evaluation procedures, including human health and wellbeing metrics.

Solutions/suggested actions

- wider dissemination, in the EU languages, of the NBS knowledge and evidence base (including case studies representing the EU's diversity) and best practices, including existing actions not labelled as NBS; and
- design and implement long-term monitoring schemes

Target 4: Advance the development, uptake and upscaling of innovative NBS

Barriers identified

- a lack of consideration of additional and innovative financing, including synergies and coordination with ESIF, cohesion and EIB sources and their national/regional implementation plans;
- Target 4 should not be centred on funding, but implementation on the ground more generally. As it is (e.g. in the roadmap diagram), it seems to be just about funding and business models, but it should also address other sorts of (political, socio-cultural, administrative, etc.) enabling factors, obstacles and national-level implementation challenges (e.g. administrative and political issues);
- a lack of coordination between levels of governance;
- short-term benefit considerations in the framework of existing business models, including public procurement focusing on the short-term cost of building infrastructure; and

- ✘ a lack of efficient communication on the benefits of NBS; science-policy communication is especially inefficient.

Solutions/suggested actions

- ➢ explore synergies with other sources of funding; foster coordination at national, regional and local levels (e.g. ESIF, RIS 3, etc.);
- ➢ best practices from EU regions and non-EU countries (including previous successful projects not badged as NBS) should be disseminated more widely and better communicated to decision-makers;
- ➢ more should be done to communicate with local and regional authorities, which are key stakeholders, and coordinate NBS at national level;
- ➢ the business, education and agriculture sectors should be key targets ('The topic is sexy; make use of that!');
- ➢ share (both positive and negative) experiences of uptake and upscaling, e.g. ask frontrunners about the best approaches; and
- ➢ more links with natural capital accounting and better accounting for non-market benefits in order to build a good business case for NBS and provide a framework for its adoption in public procurement.

Target 5: Mainstream NBS on the international R&I agenda

Participants discussed how best to fast-track the introduction of NBS into international processes and onto UN biodiversity, urban planning, climate, desertification, marine, research and development aid agendas.

NBS were recognised as a tool for guaranteeing the universality of the SDGs. They can easily be integrated into each of the 17 SDG targets, but it would be even more useful to use the systemic approach of NBS to develop a coherent approach across SDGs and solutions for possible conflicts and trade-offs between SDGs. NBS should therefore be used as a transversal, strategic tool to guarantee overall implementation of the SDGs.

Conclusion

The event brought together experts and policymakers in NBS-related fields and allowed for the exchange of a wealth of information from Member States, policymakers and specific projects. The resultant networking should help in building up a community of NBS innovators. The Commission will take account of Member States' recommendations in its work on the roadmap and in the future programming of NBS projects.

A follow-up workshop could be organised in 2018.